Appl. No.: 09/936,888

Amdt. dated November 23, 2009

Response to Restriction Requirement & Preliminary

Amendment

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1. (Currently amended) A method for reducing a condition associated with fetal alcohol syndrome in a subject who is exposed to alcohol *in utero*, the method comprising the steps of:

- (i) selecting a pregnant female having consumed alcohol during pregnancy in an amount sufficient to initiate a condition associated with fetal alcohol syndrome in the subject; and
- (ii) administering to the subject an ADNF polypeptide in an amount sufficient to reduce in the subject the condition associated with fetal alcohol syndrome.

Claim 2. (Currently amended) The method of claim 1, wherein the ADNF polypeptide is a member selected from the group consisting of:

- (a) an ADNF I polypeptide comprising an active core site having the following amino acid sequence [:] Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala (SEQ ID NO:1);
- (b) an ADNF III polypeptide comprising an active core site having the following amino acid sequence [:] Asn-Ala-Pro-Val-Ser-Ile-Pro-Gln (SEQ ID NO:2); and
- (c) a mixture of the ADNF I polypeptide of part (a) and the ADNF III polypeptide of part (b).

Claim 3. (Currently amended) The method of claim 1, wherein the ADNF polypeptide is a member selected from the group consisting of:

- (a) a full length ADNF I polypeptide,
- (b) a full length ADNF III polypeptide, and
- (c) a mixture of a full length ADNF I polypeptide and a full length ADNF III polypeptide.

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Claim 4. (Original) The method of claim 1, wherein the ADNF polypeptide is an ADNF I polypeptide.

Claim 5. (Currently amended) The method of claim 4, wherein the ADNF I polypeptide is consists of the amino acid sequence Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala (SEQ ID NO:1).

Claim 6. (Currently amended) The method of claim 4, wherein the ADNF I polypeptide is consists of an amino acid sequence selected from the group consisting of:

- (a) Val-Leu-Gly-Gly-Gly-Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala (SEQ ID NO:14);
- (b) Val-Glu-Glu-Gly-Ile-Val-Leu-Gly-Gly-Gly-Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala (SEQ ID NO:15);
- (c) Leu-Gly-Gly-Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala (SEQ ID NO:16);
 - (d) Gly-Gly-Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala (SEQ ID NO:17);
 - (e) Gly-Gly-Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala (SEQ ID NO:18); and
 - (f) Gly-Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala (SEQ ID NO:19).

Claim 7. (Currently amended) The method of claim 4, wherein the ADNF I polypeptide comprises up to about 20 amino acids at at least one of the N-terminus and or the C-terminus of the active core site.

Claim 8. (Original) The method of claim 1, wherein the ADNF polypeptide is an ADNF III polypeptide.

Claim 9. (Currently amended) The method of claim 8, wherein the ADNF III polypeptide is consists of the amino acid sequence Asn-Ala-Pro-Val-Ser-Ile-Pro-Gln (SEQ ID NO:2).

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Claim 10. (Currently amended) The method of claim 8, wherein the ADNF III polypeptide is consists of an amino acid sequence selected from the group consisting of:

- (a) Gly-Gly-Asn-Ala-Pro-Val-Ser-Ile-Pro-Gln (SEQ ID NO:20);
- (b) Leu-Gly-Gly-Asn-Ala-Pro-Val-Ser-Ile-Pro-Gln-Gln-Ser (SEQ ID NO:21);
- (c) Leu-Gly-Leu-Gly-Asn-Ala-Pro-Val-Ser-Ile-Pro-Gln-Gln-Ser (SEQ ID NO:22); and
- (d) Ser-Val-Arg-Leu-Gly-Leu-Gly-Gly-Asn-Ala-Pro-Val-Ser-Ile-Pro-Gln-Gln-Ser (SEQ ID NO:23).

Claim 11. (Currently amended) The method of claim 8, wherein the ADNF III polypeptide comprises up to about 20 amino acids at at least one of the N-terminus and or the C-terminus of the active core site.

Claim 12. (Currently amended) The method of claim 12, wherein the ADNF polypeptide is a mixture of an the ADNF I polypeptide of part (a) and an the ADNF III polypeptide of part (b).

Claim 13. (Currently amended) The method of claim 12, wherein the ADNF I polypeptide is consists of the amino acid sequence Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala (SEQ ID NO:1), and wherein the ADNF III polypeptide is consists of the amino acid sequence Asn-Ala-Pro-Val-Ser-Ile-Pro-Gln (SEQ ID NO:2).

Claim 14. (Currently amended) The method of claim 12, wherein the ADNF I polypeptide is consists of an amino acid sequence selected from the group consisting of:

- (a) Val-Leu-Gly-Gly-Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala (SEQ ID NO:14);
- (b) Val-Glu-Glu-Gly-Ile-Val-Leu-Gly-Gly-Gly-Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala (SEQ ID NO:15);
- (c) Leu-Gly-Gly-Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala (SEQ ID NO:16);

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- (d) Gly-Gly-Gly-Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala (SEQ ID NO:17);
- (e) Gly-Gly-Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala (SEQ ID NO:18);
- (f) Gly-Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala (SEQ ID NO:19); and
- (g) Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala (SEQ ID NO:1);

and wherein the ADNF III polypeptide is consists of an amino acid sequence selected from the group consisting of:

- (a) Asn-Ala-Pro-Val-Ser-Ile-Pro-Gln (SEQ ID NO:2);
- (b) Gly-Gly-Asn-Ala-Pro-Val-Ser-Ile-Pro-Gln (SEQ ID NO:20);
- (c) Leu-Gly-Gly-Asn-Ala-Pro-Val-Ser-Ile-Pro-Gln-Gln-Ser (SEQ ID NO:21);
- (d) Leu-Gly-Leu-Gly-Asn-Ala-Pro-Val-Ser-Ile-Pro-Gln-Gln-Ser (SEQ ID NO:22); and
- (e) Ser-Val-Arg-Leu-Gly-Leu-Gly-Gly-Asn-Ala-Pro-Val-Ser-Ile-Pro-Gln-Gln-Ser (SEQ ID NO:23).

Claim 15. (Currently amended) The method of claim 12, wherein the ADNF I polypeptide comprises up to about 20 amino acids at at least one of the N-terminus and or the C-terminus of the active core site of the ADNF I polypeptide, and wherein the ADNF III polypeptide comprises up to about 20 amino acids at at least one of the N-terminus and or the C-terminus of the active core site of the ADNF III polypeptide.

Claim 16. (Currently amended) The method of claim $1 \frac{2}{2}$, wherein at least one of the ADNF polypeptide polypeptides is encoded by a nucleic acid which is administered to the subject.

Claim 17. (Original) The method of claim 1, wherein the condition is decreased body weight of the subject.

Claim 18. (Original) The method of claim 1, wherein the condition is decreased brain weight of the subject.

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Claim 19. (Original) The method of claim 1, wherein the condition is a decreased level of VIP mRNA or protein of the subject.

Claim 20. (Original) The method of claim 1, wherein the condition is decreased viability of the subject *in utero*.

Claim 21. (Original) The method of claim 1, wherein the condition is decreased learning.

Claims 22. - 33. (Cancelled)

Claim 34. (New) The method of claim 1, wherein step (ii) comprises administering the ADNF polypeptide directly to the subject.

Claim 35. (New) The method of claim 1, wherein step (ii) comprises administering the ADNF polypeptide to the pregnant female during pregnancy.